

Amendments to the claims

1. (Currently amended) A method of laminating a circuit board comprising the steps of:

providing a first layer having a dielectric material having a conductive signal plane thereon, said signal plane having at least one surface with a first portion having a first roughness;

forming said signal plane into signal lines and lands;

thereafter selectively roughening at least a second portion of said at least one surface including said lands, but less than all of said one surface. to form a second surface having a second roughness greater than said first roughness;

providing a second layer comprised of a voltage plane as a single sheet of foil disposed on a dielectric material; laminating said first layer to said second layer with a sticker sheet therebetween to form a composite structure; said signal plane and said voltage plane being oriented toward each other;

said composite structure being formed with plated through holes surrounded by said lands.

2. (Canceled)

3. (Currently amended) The invention as defined in claim 2_1 wherein said second roughness of said signal plane has an R_z value greater than about 3 microns.

4. (Currently amended) The invention as defined in claim 2_1 wherein the first roughness of said at least one surface of said signal plane has an R_z value of less than about 1 micron.

5. (Currently amended) The invention as defined in claim 2_1 wherein said first roughness of said signal plane has an R_z value less than about 1 micron, and said second roughness of said signal plane has an R_z value greater than about 3 microns.

6. (Currently amended) The invention as defined in claim 2_1 wherein said signal plane has a plurality of portions of said surfaces at least one signal plane surface with said second roughness.

7. (Currently amended) The invention as defined in claim 6 wherein said plurality of portions of surfaces of said at least one signal plane surface signals plane include includes at least three surfaces.

8. (Currently amended) The invention as defined in claim 1 wherein said voltage plane has a first portion with at least one surface with a first surface roughness aligned with the first portion of said signal linesplane, and a second portion having a second surface with a second surface roughness greater than the surface roughness of said first portion thereof of said voltage plane.

9. (Original) The invention as defined in claim 8 wherein said first portion of said at least one surface of said voltage plane has an R_z value surface roughness of less than about 1 micron and said second portion of said second surface of said voltage plane has an R_z value of greater than about 3 microns.

10. (Currently amended) The invention as defined in claim 1 wherein said roughened surfaces second portions of said signal plane having a second roughness are copper and are roughened by treating the copper surface with an oxide or an oxide replacement process, or having plated thereon zinc, brass, nickel or chrome.

11. (Previously presented) The invention as defined in claim 1 wherein said surface of said signal plane having said second roughness is created by applying a photoresist material to said signal plane, then exposing and developing said photoresist to reveal the surface to have said second roughness, then treating said surface to have said second roughness to provide the desired surface roughness, then removing the photoresist.

12. (Currently amended) The invention as defined in claim 8.1 wherein said surfaces second portion on said voltage signal plane having said second roughness is created by, applying a masking material to all of the unmasked areas of said voltage plane that are not to have said second roughness, then roughening those areas to have said second roughness.

13. (Currently amended) The invention as defined in claim 8 10 wherein said second portion of said signal plane roughened surfaces having said second roughness and said second portion of said voltage plane having said second roughness are roughened by treating the copper surface with an oxide or an oxide replacement process, or having plated thereon zinc, brass, nickel or chrome.

14. (Previously presented) The invention as defined in claim 8 wherein said surface on said voltage plane having said second roughness is created by applying a photoresist material to said voltage plane, then exposing and developing said photoresist to reveal the surface to have said second roughness, then treating said to have said second roughness surface to provide the desired surface roughness, then removing the photoresist.

15. (Currently amended) The invention as defined in claim 8 1 wherein said surfacessecond portion on said voltagesignal plane having said second roughness is created by, applying a masking material to all of the unmasked areas of said voltage plane that are not to have said second roughness,
then roughening those areas to have said second roughness.